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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,331	04/14/2004	Olivier J. A. Schueller	H0498.70168US01	5408
Timothy J. Oye	7590 01/17/2007 er, Ph.D.	EXAMINER		
Wolf, Greenfie	ld & Sacks, P.C.	SCHATZ, CHRISTOPHER		
600 Atlantic Avenue Boston, MA 02210			AŖT UNIT	PAPER NUMBER
200000, 000000		·	1733	
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SHORTENED STATUTOR	Y PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
31 DAYS		01/17/2007	PAP	PER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
	10/824,331	SCHUELLER ET AL.
Office Action Summary	Examiner	Art Unit
	Christopher T. Schatz	1733
The MAILING DATE of this communication  Period for Reply	on appears on the cover sheet wi	th the correspondence address
A SHORTENED STATUTORY PERIOD FOR F WHICHEVER IS LONGER, FROM THE MAILII  - Extensions of time may be available under the provisions of 37 of after SIX (6) MONTHS from the mailing date of this communicat  - If NO period for reply is specified above, the maximum statutory  - Failure to reply within the set or extended period for reply will, by Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	NG DATE OF THIS COMMUNIC CFR 1.136(a). In no event, however, may a r tion. period will apply and will expire SIX (6) MON y statute, cause the application to become AB	CATION.  eply be timely filed  ITHS from the mailing date of this communic  ANDONED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on	1 <u>4 April 2004</u> .	•
2a) This action is <b>FINAL</b> . 2b)	This action is non-final.	
3) Since this application is in condition for a	•	
closed in accordance with the practice ur	nder <i>Ex parte Quayle</i> , 1935 C.D	), 11, 453 O.G. 213.
Disposition of Claims		·
	cation.	•
4)⊠ Claim(s) <u>1-61</u> is/are pending in the applic		•
4) Claim(s) <u>1-61</u> is/are pending in the application 4a) Of the above claim(s) is/are wi		
4a) Of the above claim(s) is/are wi		
4a) Of the above claim(s) is/are wi 5) Claim(s) is/are allowed.		

7/ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d)
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.
Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some \* c) ☐ None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

1) 🗀	Notice of References Cited (PTO-892)
2)	Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) 🔲	Information Disclosure Statement(s) (PTO/SR/08)

Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date \_\_\_\_\_\_.

4)	Ш	Interview Summary (PTO-413)
		Paper No(s)/Mail Date

5) Notice of Informal Patent Application

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6) [	I Othe	or:

## **DETAILED ACTION**

## Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-30 and 59-61, drawn to a method of bonding two plasma treated surfaces, classified in class 156, subclass 272.6.
- II. Claims 33-42, drawn to a method of forming a siloxane bond between twosurfaces, classified in class 156, subclass 60.
- III. Claims 43-51, drawn to a method of joining surfaces at a temperature of 16 C to 27 C, classified in class 156, subclass 308.2
- IV. Claims 52-56, drawn to a product, classified in class 428.
- V. Claim 57, drawn to a method of introducing fluid into a channel, classified in class 422.
- VI. Claim 58, drawn to a system, classified in class 204.

Inventions I and II are related as independent inventions, each having a unique and separate means for establishing patentability. Invention I is directed to a method of bonding plasma treated surfaces, where as Invention II is directed toward forming a siloxane bond between two surfaces. Invention I does not require the formation of a siloxane bond, and Invention II does not require the surfaces to be plasma-treated. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions I and III are related as independent inventions, each having a unique and separate means for establishing patentability. Invention I is directed to a method of bonding plasma treated surfaces, where as Invention III is directed toward a method of joining surfaces at a temperature of 16 C to 27 C. Invention I does not require joining to occur between 16 C and 27 C, and Invention III does not require the surfaces to be plasma-treated. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions I and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as bonding two non-treated surfaces together.

Inventions I and V are related as independent inventions, each having a unique and separate means for establishing patentability. Invention I is directed to a method of bonding two surfaces, wherein at least one surface is pre-treated, where as Invention V is directed toward a method of injection fluid into a channel. Invention V does not require bonding of a pre-treated surface, and invention I does not require injecting fluid into a channel. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions I and VI are related as independent inventions, each having a unique and separate means for establishing patentability. Invention I is directed to a method of bonding two surfaces, wherein at least one surface is pre-treated, where as Invention VI is directed toward a system comprising a channel and electric circuitry. Invention VI does not require bonding of a pre-treated surface, and Invention I does not require a system comprising a channel and electric circuitry. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions II and III are related as independent inventions, each having a unique and separate means for establishing patentability. Invention II is directed toward a method of forming a siloxane bond between two surfaces, whereas Invention III is directed toward a method of joining surfaces at a temperature of 16 C to 27 C. Invention II does not require joining to occur between 16 C and 27 C, and Invention III does not require the formation of a siloxane bond. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions II and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as bonding two surfaces together without formation of a siloxane bond.

Inventions II and V are related as independent inventions, each having a unique and separate means for establishing patentability. Invention II is directed toward a method of forming a siloxane bond between two surfaces, whereas Invention V is directed toward a method of introducing electroosmotic flow into a channel. Invention II does not require introducing electroosmotic flow into a channel, and Invention V does not require the formation of a siloxane bond. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions II and VI are related as independent inventions, each having a unique and separate means for establishing patentability. Invention II is directed toward a method of forming a siloxane bond between two surfaces, whereas Invention VI is directed toward a system comprising a channel and electrical circuitry. Invention II does not require a system comprising a channel and electrical circuitry, and Invention VI does not require the formation of a siloxane bond. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions III and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as bonding two surfaces at a temperature outside of applicant's claimed range.

Inventions III and V are related as independent inventions, each having a unique and separate means for establishing patentability. Invention III is directed toward a method of joining surfaces at a temperature of 16 C to 27 C, whereas Invention V is directed toward a method of introducing electroosmotic flow into a channel. Invention III does not require introducing electroosmotic flow into a channel, and Invention V does not require joining surfaces at a temperature of 16 C to 27 C. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions III and VI are related as independent inventions, each having a unique and separate means for establishing patentability. Invention III is directed toward a method of joining surfaces at a temperature of 16 C to 27 C, whereas Invention VI is directed toward a system comprising a channel and electrical circuitry. Invention III does not require a system comprising a channel and electrical circuitry, and Invention VI does not require joining surfaces at a temperature of 16 C to 27 C. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions IV and V are related as independent inventions, each having a unique and separate means for establishing patentability. Invention IV is directed to a bonded article with a liquid impermeable seal, where as Invention V is directed toward a method of injection fluid into a channel. Invention IV does not require a channel and Invention V does not require a liquid-impermeable seal. Because these inventions are distinct for the reasons given above and have

acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions IV and VI are related as independent inventions, each having a unique and separate means for establishing patentability. Invention IV is directed to a bonded article with a liquid impermeable seal, where as Invention VI is directed toward a system comprising a channel. Invention IV does not require a channel and Invention VI does not require a liquid-impermeable seal. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions V and VI are related as independent inventions, each having a unique and separate means for establishing patentability. Invention V is directed to a method of introducing electroosmotic flow into a channel, where as Invention VI is directed toward a system comprising a channel and electrical circuitry. Invention V does not require electrical circuitry and invention VI does not require electroosmotic fluid. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art due to their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

If applicant elects Group I, Group II, or Group III, applicant is required to further elect one species from each of the following patentably distinct Groups of Species:

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Group A:

Species A1: wherein the pump is a physical pump

Species A2: wherein the pump is an electroosmotic

Group B:

Species B1: wherein the second surface is polymeric

Species B2: wherein the second surface is metal

The species are independent or distinct because the species in Group A are mutually exclusive from each other and the species in Group B are mutually exclusive from each other.

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Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-21, 24-30, 33-38, 40, 41, 43-45, 47-50, and 52-61 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher T. Schatz whose telephone number is 571-272-1456. The examiner can normally be reached on 8:00-5:30, Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

hristopher T. Schatz

ZUSTIN R. FISCHER PRIMARY EXAMINER